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EXAMINER
TOPGYAL, GELEK W

ART UNIT	PAPER NUMBER
2481	

NOTIFICATION DATE	DELIVERY MODE
08/09/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 May 2006*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 May 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1.   The information disclosure statement (IDS) submitted on 5/3/2006, 5/29/2009

and 6/10/2011 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the

information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3.   **Claim 17** is rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter. Computer programs claimed as computer

listings per se, i.e., the descriptions or expressions of the programs, are not physical

"things." They are neither computer components nor statutory processes, as they are

not "acts" being performed. Such claimed computer programs do not define any

structural and functional interrelationships between the computer program and other

claimed elements of a computer which permit the computer program's functionality to be

realized. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

35 USC § 112

4.   Claim elements "input operation part for, storage part for, moving image file

processing part for, reproduction information file processing part for, operation

managing part for, data processing part for, file analyzing part for, informing means for,

means for retrieving an arbitrary number, means for generating a basic frame, means

for coupling the basic frame, determining means for detecting a difference, multiplex file

processing part for" are limitations (in claims 1, 3, 4, 6, 7, 9 and 19) that invokes 35

U.S.C. 112, sixth paragraph. However, the written description fails to disclose the

corresponding structure, material, or acts for the claimed function.

Applicant may:

(a)   Amend the claim so that the claim limitation will no longer be interpreted

as a limitation under 35 U.S.C. 112, sixth paragraph; or

(b)   Amend the written description of the specification such that it expressly

recites what structure, material, or acts perform the claimed function without introducing

any new matter (35 U.S.C. 132(a)).

If applicant is of the opinion that the written description of the specification

already implicitly or inherently discloses the corresponding structure, material, or acts so

that one of ordinary skill in the art would recognize what structure, material, or acts

perform the claimed function, applicant should clarify the record by either:

(a)   Amending the written description of the specification such that it expressly

recites the corresponding structure, material, or acts for performing the claimed function

and clearly links or associates the structure, material, or acts to the claimed function,

without introducing any new matter (35 U.S.C. 132(a)); or

(b)   Stating on the record what the corresponding structure, material, or acts,

which are implicitly or inherently set forth in the written description of the specification,

perform the claimed function. For more information, see 37 CFR 1.75(d) and MPEP §§

608.01(o) and 2181.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act

of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior

to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6.   **Claims 1-5, 7-8 and 10-20** are rejected under 35 U.S.C. 102(e) as being

anticipated by Chen et al. (US 7,046,910) herein "Chen".

7.   **Regarding claim 1**, Chen teaches a resume reproduction system which is a

system device for reproducing moving image data in an arbitrary format (including a file

in which still images are recorded continuously, and an animation file; same hereinafter)

(col. 4, lines 4-14 teaches of various devices capable of performing a resume

reproduction process for moving images), comprising:

an input operation part for performing an input operation (col.4, lines 7-14

teaches of devices allowing for instructions such a play, stop, pause, forward, rewind,

jump, etc, thus teaches an input operation part);

a storage part for storing a moving image data file (col. 6, lines 15-24 teaches of a storing device), a reproduction information file in which control information concerning a reproduction process, including a reproduction position of the moving image file, is described (col. 7, lines 22-35 and col. 4, lines 38-42 teaches of header information used to find reproduction positions of said moving image file), and a reproduction processing reference file composed of image data of an arbitrary number of unit frames (col. 5, line 56 through col. 6, line 3 teaches of creating a new reference point during trick modes);

a moving image file processing part for performing the reproduction process for the moving image file (Fig. 3, processor 230 performs the functions of reproducing the moving image);

a reproduction information file processing part for performing a reading/writing and an analysis of the reproduction information file (Fig. 3 and col. 7, lines 22-35 and col. 4, lines 38-42, processor 230 performs the functions of recording the header information and for using the header information during reading/writing operation); and

an operation managing part for controlling the moving image file processing part and the reproduction information file processing part (as discussed above, since the entire apparatus (PVR, DVR, etc in col.6 lines 15-22) is controlled/processed by the processor 230, the operating managing part is also performed by it).

Regarding claim 2, Chen teaches the claimed wherein the storage part is incorporated in a terminal including the resume reproduction system, attached externally, or associated on an external network (col. 6, lines 15-22 teaches an external storage device).

Regarding claims 3 and 20, Chen teaches the claimed wherein the moving image file processing part includes a data processing part for performing at least one of processes of reproducing and recording each of different types of data included in the moving image file (as discussed in claim 1 above and furthermore in col. 6, lines 4-22, the processor 230 controls/processes all the functionality of the device including the ability to record and play stored moving image data).

Regarding claim 4, Chen teaches the claimed wherein the reproduction information file processing part includes: a file analyzing part for analyzing a syntax of a read file; and informing means for informing the operation managing part of a result of a file analysis by the file analyzing part (col. 7, lines 22-36 teaches the checking of the format/syntax of the moving image file and based on the format a process is selected from the two options).

Regarding claim 5, Chen teaches the claimed wherein, in the reproduction information file are described: a process determination code for indicating whether or not a file is to be processed, a file name of the moving image file to be reproduced, and a reproduction start time to reproduce (col. 7, lines 22-36 teaches the checking of the format/syntax of the moving image file and based on the format a process is selected from the two options, the moving image file is already selected fro reproduction and the reproduction start time is when the counter is set to 0).

Regarding claim 7, Chen teaches the claimed wherein the data processing part includes: means for retrieving an arbitrary number of frames following a point of occurrence of an event for instructing a timing for creating the reproduction information

file, from the moving image file; means for generating a basic frame; and means for coupling the basic frame and a difference frame including only a difference from an immediately preceding flame to generate one reproduction processing reference file (col. 5, line 47 through col. 6, line 3 teaches that after a trick play mode is instructed, a new basic frame (I-frame) is created by using the multiple non-I frames).

Regarding claim 8, Chen teaches the claimed wherein the reproduction processing reference file includes a process determination code for indicating whether or not a file is to be processed, a file name of the moving image file to be reproduced, and at least a basic frame among the basic frame and a difference frame (col. 7, lines 22-36 teaches the checking of the format/syntax of the moving image file and based on the format a process is selected from the two options, the moving image file is already selected fro reproduction and the moving image file (as taught in col. 5, line 45 through col. 6, line 3) includes the basic frame (re-encoded and stored I frame)).

Regarding claim 10, Chen teaches the claimed wherein the moving image file processing part is capable of selecting whether or not to start a reproduction process from an arbitrary basic frame in the moving image file, or to perform a reproduction process for a difference frame subsequently after reproducing frame data in the reproduction processing reference file (as discussed in claims 1 and 7-8 above wherein based on the resume location, the I-frame is initially used as a resumption point followed thereby by P-frames that existed in the previous stream (see col. 5, lines 16-24)).

Regarding claim 11, Chen teaches the claimed wherein the input operation part includes an interface for acquiring a mode value for an operator to set whether or not to perform a resume reproduction, a name of the moving image file to be reproduced, at least one of a reproduction event and a stop event, and an event for instructing a timing for creating the reproduction information file at an arbitrary position during reproduction of the moving image file (col.4, lines 7-14 teaches of devices allowing for instructions such a pause, forward, rewind, jump, etc, thus teaches an input operation part. As taught in col. 5, line 45 through col. 6, line 3, after the start of reproduction (first mode value for reproduction) a trick play may be instructed by a user (stop event), wherein the new I-frame is created (thus the related header information and the newly generated "reference file").

Claim 12 is rejected for the same reasons as discussed in claims 1 and 7 above.

Regarding claim 13, Chen teaches a resume reproduction method comprising steps of:

acquiring a moving image file name to be reproduced, according to an operation event from an operator (col.4, lines 7-14 teaches of devices allowing for instructions such a play, stop, pause, forward, rewind, jump, etc, thus teaches an input operation part);

acquiring a moving image file corresponding to the moving image file name, and dividing the moving image file into different types of data when the moving image file is in a file format in which the different types of the data are multiplexed (Fig. 3 and col. 5,

lines 16-24 and col. 6, lines 23-67 teaches of decoding I and P frames separately, which

together comprises the contents of the moving image file);

performing a reproduction process concerning a basic frame including all data of

information necessary for reproducing one frame (as discussed and furthermore in col.

5, line 56 through col. 6, line 3 teaches of creating a new reference point during trick

modes by generating a new I frame), and a reproduction process for a difference frame

including only difference data from an immediately preceding frame (as discussed and

furthermore in col. 5, line 56 through col. 6, line 3 with reference to the P frames); and

determining whether or not a reproduction stop command or a generation

command for a reproduction information file has been issued according to the operation

event from a file operator including the basic frame, and when a reproduction stop event

or a reproduction information file generation command had occurred, creating a related

file for performing a resume reproduction, and generating a basic frame from data of an

arbitrary number of frames subjected to the reproduction process (col. 5, line 56 through

col. 6, line 3 teaches of creating a new reference point during trick modes by generating

a new I frame. The trick mode can be a stop or pause that would trigger the system to

generate a new I-frame at the specific location. Therefore the header information for the

moving image file is also updated to reflect the new I-frame that has been reinserted

into the moving image file as an I-frame).

Regarding claim 14, Chen teaches the claimed wherein the method further

comprises steps of detecting a difference between a reproduction elapsed time at which

a decoding process is executed, and a decoding process time for the new I frame,

determining whether or not the difference value is equal to or smaller than a

predetermined threshold value, and storing recoded data when the difference value is

equal to or larger than the threshold value which is a reference value for determining

whether or not the resume reproduction is effective (As discussed above in col. 5, line

45 through col. 6, line 3, the effective threshold value is equal to greater when the

system processes the P-frames into a single I-frame, otherwise as discussed in col. 3,

lines 24-27, trick play of the moving image file would not be possible).

Regarding claim 15, Chen teaches the claimed wherein the method further

comprises a step of determining whether or not to set a reproduction start position of the

multiplexed data to an originally existing I frame, or to the new I frame (as discussed in

claims 13 and 14 above, the system of Chen allows for the start position of the

resumption to take place at the location of the new I-frame that has been generated to

allow trick play).

Claim 16 is rejected for the same reasons as discussed in claims 13-15 above

and furthermore when the reference file exists, Chen teaches that the location of the

newly generated I-frame is used for reproduction. However as discussed in col. 3, lines

24-27, since the original stream can not allow for trick play processing, the moving

image file would have to start from the beginning (I-slice at the start of the moving

image file), which is prior to the reproduction start time.

Program claim 17 is rejected for the same reasons as discussed in method

claim 13 above and furthermore, the apparatus of Chen is implemented on a electrical

based system requiring the use of a program stored on a memory to allow for the

system to implement its functions.

Claim 18 is rejected for the same reasons as discussed in claims 1 above

wherein the moving image data includes image, audio and telop data.

Claim 19 is rejected for the same reasons as discussed in system claim 1 above

and furthermore, Chen teaches of a multiplexer 255 in Fig 3 for performing the step of

multiplexing the moving image file.

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

9.   **Claims 6 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Chen et al. (US 7,046,910) in view of Matsui (US 2002/0141740).

Regarding claims 6 and 9, Chen teaches the claimed as discussed in claim 1

above, however fails to particularly teach wherein the moving image file processing part

includes means for informing the operation managing part of: a reproduction elapsed

time during the reproduction process for the moving image file; and a basic frame

processing time at which a reproduction process is performed for a reference image

generation frame which is a basic frame included in the moving image file, and includes

all information necessary for reproducing an image of one frame and determining

whether or not a detected difference value is within an arbitrary threshold value.

In an analogous art, Matsui teaches in paragraphs 56 and 57 of being able to receive the elapsed point of reproduction (where the transmission error occurred) and compares the time of decoding of the next inter-frame (which takes into account the decoding time of the inter-frame as well) and is able to compare the difference to a predetermined threshold.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Matsui into the teachings of Chen because said incorporation allows for the benefit of providing display of smooth motion with lesser visual effects despite transmission errors (Matsui: End of paragraph 57).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GELEK W. TOPGYAL whose telephone number is (571)272-8891. The examiner can normally be reached on 8:30am -5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on 571-272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/GELEK W TOPGYAL/
Examiner, Art Unit 2481
/William C. Vaughn, Jr./

Supervisory Patent Examiner, Art Unit 2481